Architectural Thesis

Designs

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AN OPERA HOUSE

BY

ALBERT MILLER ALLEN

THESIS

FOR THE DEGREE OF BACHELOR OF SCIENCE
IN ARCHITECTURE

COLLEGE OF ENGINEERING
UNIVERSITY OF ILLINOIS
1901

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June 7, 1901. 190

THIS IS TO CERTIFY THAT THE THESIS PREPARED UNDER MY SUPERVISION BY

Albert Miller Allen

ENTITLED An Opera House

IS APPROVED BY ME AS FULFILLING THIS PART OF THE REQUIREMENTS FOR THE DEGREE

OF Bachelor of Science in Architecture.

N. Clifford Ricker

HEAD OF DEPARTMENT OF Architecture.

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Description of Thesis Design.

Modern practice in theatre construction in the United States differs from that of Europe in many respects the principal difference being the purpose for which the theatre is built. In Europe the theatre is fostered by the government, and actors are hired only for their ability. On the other hand up to the present time in this country the theatre has been built primarily and solely for the purpose of the financial return anticipated on the investment. These methods and purposes in theatre building have left their stamp indelibly upon the work done, and it must be admitted that the American theatre suffers in comparison.

Of late years, however, the demands of our theatre-goers for a higher standard in theatre construction and a better class of plays has had a marked effect upon the appearance of our play houses, and we now have a few buildings which, at least in so far as interior finish is concerned, compare very

favorably with their foreign prototypes.

In our large cities, unless the government should assume control of the theatre, we shall probably never be able to compete with our European brothers along the lines of exterior design, because, as a financial investment, the high price of land effectually prevents the erection of a building which is open on all sides. We thus find the American theatre usually constructed between party walls, and the facade made the most important feature of the exterior.

With these considerations in mind, I have assumed the following general conditions for my problem, viz:- the lot to be 120 ft. wide by 230 ft. deep, to front on a main thoroughfare and to extend through to a street of minor importance. The principal facade is to be treated in a highly ornamental manner and in a style which will properly convey an idea of the uses to which the interior is to be put. The theatre is to be used -

continuous performances of high class vaudeville, and hence must have ample foyer space for promenading and rooms for the serving of refreshments. With this program in mind the problem is solved as follows.

Entrance to the main part of the theatre is obtained through six pairs of double acting doors which give access directly to the grand vestibule. This room is 39 ft. long by 16 ft. wide, and the ceiling consists of three domed vaults finished in hard plaster and highly ornamented in color and gold. The walls are of white Parian marble with fluted Corinthian pilasters between the doors. At either end of the vestibule are found wickets opening into the box office on the right and a check room on the left. Ample communication between the vestibule and the grand lobby is provided through doors similar to those of the main entrance.

The grand lobby is a room 82 ft. long by 48 ft. wide and is designed as-

specially for the purpose of a promenade and place of conversation for the patrons. It extends to the height of the ceiling of the balcony foyer, a distance of 80 ft. and is finished in Sienna marble with ornate Corinthian pilasters spaced around the walls, these being carried up in the form of piers capped with an elaborate architrave and supporting arches which extend around three sides of the lobby and form an arcaded foyer connecting with the balcony. These piers are flanked with light fluted columns which help to support the arches and also form slops for the highly ornamental and gracefully curved bronze railings which enclose the separate openings of the arcade. Between these railings and in front of each pier is placed an elaborate wrought iron candelabra. The ceiling of the lobby is finished in plaster panelled and worked in relief ornament in colors to harmonize with the marble.
The fourth side of the lobby ...

curved surface, the walls being drawn from a center located 38 ft. in front of the curtain line and on the main axis line of the building.

Passing up a flight of six marble steps, and through entrances located directly opposite those last mentioned, we enter the grand foyer, whose side walls are drawn to the center referred to above. This foyer is 37 ft. wide and 48 ft. long. To the right and left of the foyer and leading to the balcony are the grand staircases, spiral in form, 9 ft. wide and finished, as is also the entire foyer, in Sienna marble.

From the grand foyer, entrance is obtained to the parquet through five curtained arches each 5 ft. wide. The parquet is seated concentrically from the stage outward, the curves of the seats being struck from a center located 28 ft. back of the curtain line on the main axis line of the building. The parquet is in the form of a horse-shoe being 67 ft. wide, 72 ft. long.

the curtain line to the rear wall and is capable of seating 600 people. Entrance and exit is provided by two main aisles and two side aisles which latter connect with the foyers.

The latter foyers form a continuation of the grand foyer on each side of the auditorium and are 9 ft. wide and finished in Sienna marble. The side walls are divided into bays by pilasters, the ceiling being flat, finished in plaster, and decorated in relief. The foyers also give access to a ladies' parlor, a smoking room, and, by means of passages, to the boxes. The balcony boxes are also reached through these passages by means of stairways. Opening into the passages on either side of the auditorium are two wine or refreshment rooms which are connected with serving rooms at the rear of which exits are planned on each side of the stage. The passages, the ladies' parlor, and the smoking room are finished in quartered oak, the refreshment and serving rooms in bog oak.

Passing under the stair-landings and turning towards the rear, entrance is obtained to the stage through fire-proof doors. The stage proper is 47 ft. deep from the curtain line to the rear wall, 76 ft. wide and 100 ft. high to the gridiron. It is flanked on the left by a scene dock and on the right by a property room. These two rooms are 37 ft. long by 11 ft. wide, the scene dock being 36 ft. high.

There are three fly galleries, on each side of the stage leading to the dressing and other rooms which are naturally connected therewith. Commodious stairways connect the stage with these fly galleries and the rigging loft, and also serve as a means of communication with two tiers of dressing rooms one on each side of the stage, the first tier forming a mezzanine story over the wing rooms above referred to, and the second being on a level with the balcony boxes, thus providing a total of 65 dressing rooms.

Entrance to the gallery is gained through corridors 16 ft. wide and 88 ft. long which are on either side of the grand lobby, which connect the gallery doors of the main facade with the gallery stairs.

The basement contains the heating and cooling apparatus and fuel-room chambers under the auditorium and stage machinery under the stage. Fresh air and vent stacks are provided on either side of the grand foyer near the grand staircases.

The facade is built of Amherst sandstone extending up to the level of the balcony floor and capped by a string course. The gallery entrances are cut through pavilions which are carried up on either side to the main cornice to break the flatness of the facade. The central portion of the facade above the first story is of buff brick and terra-cotta; it consists of five circle head mullioned windows separated by piers with

engaged Ionic pilasters which extend to the frieze. The main cornice and frieze are executed in terra-cotta elaborately ornamented and form a fitting crown for the second story above referred to. The facade finishes in a curved mansard roof covered by slate and pierced by five bulls-eye dormer windows.

The central portion of the first or basement story contains three main openings into the vestibule and two windows, one on each side to give light to the box office and check room respectively. These openings are circle head, the arc of the circle being filled with allegorical reliefs in white marble illustrating the growth and development of the theatrical spirit.

The total seating capacity of the auditorium is 1260 persons being about one sitting for each 23 sq. ft. of lot area. The cost of construction would approximate 840,000 dollars.

C. W. Allen.